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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/564,622	03/07/2007	Andre Louis Koekemoer	MDT0003US	2222

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EXAMINER	
DAVID, MICHAEL D	

ART UNIT	PAPER NUMBER
3641	

NOTIFICATION DATE	DELIVERY MODE
07/13/2009	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/564,622	KOEKEMOER ET AL.	
	Examiner	Art Unit	
	MICHAEL D. DAVID	3641	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *30 March 2009*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *41-58* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *41-58* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *12/13/2007*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

Applicant's election with traverse in the reply filed on 3/12/2009 is acknowledged. The arguments/grounds were found persuasive and therefore the restriction requirement has been withdrawn by the examiner. Claims 41-58 are pending and addressed below.

Information Disclosure Statement

The information disclosure statement (IDS) submitted on 1/12/2006 has been considered by the examiner.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 41-58 are rejected under 35 U.S.C. 102(b) as being anticipated by Marsh (EP 0601831 A1).

Regarding claim 41 Marsh discloses a method of establishing a blasting system (abstract, fig. 1 and 10) in which a plurality of detonators are connected in a predetermined sequence which includes the steps of providing at least one marker at least at one location in the sequence whereby at least a first detonator in the sequence

is distinguished from at least a second detonator in the sequence, and interrogating the marker to establish information associated with the marker (abstract, fig. 1 and 10) and which is characterized in that the information relates at least to one or more of the following: a) a class or category to which the marker belongs; b) the type of marker; c) a timing period for a detonator (different delay times – pg. 6 line 7); d) information relating to a geological feature in an area in which the blasting system is established or used (geometry of the rock to be blasted – pg. 5 line 55); e) information relating to a configuration or pattern of the blasting system (patterns – pg. 5 line 58); f) information relating to a designated feature in the blasting system; and g) information relating to a detonator or a class of detonators.

Regarding claim 42 Marsh discloses a method according to claim 41 wherein the marker is interrogated from a remote point (fig. 1 shows blast controller located at a remote point and connected to markers by communication/timing cables).

Regarding claim 43 Marsh discloses a method according to claim 41 which includes the step of forming a graphical representation (blast planning software has a graphical CAD-like interface which allows the operator to graphically lay out the blast - pg. 5 line 54-55) of at least part of the blasting system using at least part of the information which is associated with the marker.

Regarding claim 44, Marsh discloses a method according to claim 41 wherein the detonators are connected to a harness and the marker is also connected to the harness (harness cable – pg. 6 line 25).

Regarding claim 45 Marsh discloses a method according to claim 41 wherein the location is selected from a physical location in an area in which the detonators are used and a notional location at which the marker is used to identify or distinguish a detonator or detonators in the sequence (pg. 6 lines 4-9; fig. 10).

Regarding claim 46 Marsh discloses a method according to claim 41 which includes the step of configuring the at least first detonator differently from the at least second detonator (separate detonators with different delay times are placed in each section of explosives – pg. 6 line7-8).

Regarding claim 47 Marsh discloses a method according to claim 46 which includes the step of initiating the at least first detonator differently from the at least second detonator or the remaining detonators (pg. 7 lines 9-15).

Regarding claim 48 Marsh discloses a method according to claim 46 which includes the step of assigning a time delay to the at least first detonator which differs from a time delay assigned to the at least second detonator (separate detonators with different delay times are placed in each section of explosives – pg. 6 line7-8).

Regarding claim 49 Marsh discloses a method according to claim 41 wherein the at least first detonator is distinguished from the second detonator on the basis that the first detonator is associated with a change in a physical pattern or layout in the blasting system (blast patterns – pg. 7 line 11; fig. 10).

Regarding claim 50 Marsh discloses a method according to claim 49 wherein the change in the physical pattern or layout is selected from a transition between a main

line and a branch line and a boundary between one group of detonators and another group of detonators (fig. 10).

Regarding claim 51 Marsh discloses a method according to claim 41 wherein the at least first detonator is distinguished from the at least second detonator on the basis that the first detonator is associated with a geological feature in rock or terrain in which the blasting system is established, or with an end of a detonator string (fig. 1 and 10).

Regarding claim 52 Marsh discloses a method according to claim 41 wherein the sequence of detonators extends over at least two zones in which different types of blasting control are to be exercised and wherein the detonators in each zone are initiated in a respective manner which takes account of the characteristics in, and the requirements of, that zone (fig. 1 and 10).

Regarding claim 53 Marsh discloses a method according to claim 52 wherein each zone is demarcated, in the blasting sequence, by indicating or marking at least two locations which are spaced from each other in the detonator sequence (fig. 1 and 10).

Regarding claim 54 Marsh discloses a method according to claim 53 wherein the detonator sequence is configured so that the zones follow one another successively in a geographical sense (pg. 5 line 55 - pg. 6 line 3).

Regarding claim 55 Marsh discloses a method according to claim 53 wherein the detonator sequence is configured so that at least one zone extends, in the form of a branch line of detonators, from a main line of detonators (fig. 10).

Regarding claim 56 Marsh discloses a method according to claim 41 wherein the indicated location designates a transition in the detonator sequence wherein detonators

after the location are arranged in two or more zones which extend, from the location, independently of each other (fig. 10).

Regarding claim 57 Marsh discloses a method according to claim 41 which includes the steps of providing first and second markers which respectively designate a start and an end of a branch line which incorporates at least one detonator, a first connector for connection to an incoming line, a second connector for connection to an outgoing line, and a third connector for connection to the branch line, and of effecting electrical connections between designated conductors in the respective lines, the markers and the connectors (fig. 1 and 10).

Regarding claim 58 Marsh discloses a method according to claim 41 which includes the steps of providing first, second and third markers arranged so that the first and second markers respectively designate a start and an end of a first line which incorporates a first row of detonators, and so that the second and third markers designate a start and an end of a second line which incorporates a second row of detonators; a first connector for connection to an incoming line; a second connector for connection to an outgoing line, a third connector for connection to the first line; and a fourth connector for connection to the second line; and of effecting electrical connections between designated conductors in the respective lines, the markers and the connectors (fig. 1 and 10).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The prior art of record discloses various blast systems.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael D. David whose telephone number is 571-270-3737. The examiner can normally be reached on Monday-Friday, 8:00am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Carone can be reached on 571-272-6873. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/MDD/
7/5/2009

/Bret Hayes/
Primary Examiner, Art Unit 3641